Crosscurrents

...ing the St. Paul District since 1977
...mer 2017 | Vol. 43, No. 2

Breaking Ground at Fargo

$2.1 billion diversion project underway

U.S. Army Corps of Engineers
St. Paul District

Summer 2017 | Volume 43, Issue 2

St. Paul District, federal, state and local leaders break ground on the $2.1 billion diversion channel project around Fargo, North Dakota, and Moorhead, Minnesota, April 17.
Photo by Tammy Jo Taft

Crosscurrents is an unofficial publication authorized under the provisions of AR 360-1. It is published quarterly for U.S. Army Corps of Engineers, St. Paul District.

Views and opinions expressed in *Crosscurrents* are not necessarily those of the Department of the Army or the U.S. Army Corps of Engineers.

Articles and photography submissions are welcome and must arrive by the 15th day of the publishing month for consideration. Submissions can be mailed or emailed.

Submissions should be in Microsoft Word format for all written copy and photos should be no smaller than a 5 x 7 at 300 dpi. All photographs appearing herein are by the St. Paul District Public Affairs Office unless otherwise accredited.

The mission of *Crosscurrents* is to support the commander's internal information program for the St. Paul District and its stakeholders.

Crosscurrents also serves as the commander's primary communication tool for accurately transmitting policies and command philosophy to the St. Paul District. community and its customers.

Address all inquiries to:
Editor, Crosscurrents
U.S. Army Corps of Engineers
180 Fifth Street East; Suite 700
St. Paul, MN 55101-1678
(651) 290-5202
cemvp-pa@usace.army.mil

District Commander	Col. Sam Calkins
Public Affairs Chief	Shannon Bauer
Crosscurrents Editor	John Barker
Contributors	Patrick Moes
	George Stringham

Crosscurrents Contents

Contents

Facebook Twitter YouTube Flickr

Comments from the top

Col. Sam Calkins
U.S. Army Corps of Engineers
St. Paul District Commander

Team,

In the last issue I asked the district to think about 'Big Ideas for 2025.' More to follow on that in a minute, but first this: In early May, leaders from across our organization spent two days at Camp Ripley, Minnesota, discussing a strategic direction for the district. When we talk about strategy, the "ends, ways and means" all play critical roles. Ends are big ideas about what we want to achieve, ways are the methods we'll use to achieve them, and means are the resources we have (or need to acquire) to make it all happen.

Over two days of discussion, district leaders agreed on a statement that combines those three things to set a strategic vision for 2025. Here it is:

The Ends

While maintaining delivery of our baseline mission, to include support to national centers, the St. Paul District will pursue two new strategic initiatives with the goal of becoming the Corps' recognized:

1) Watershed planning experts, and
2) Federal infrastructure experts.

The Ways

In the next year, the district will advance these strategic initiatives and deliver the program by:

1) Developing project-based teams, and
2) Building surge capacity and an agile workforce.

The Means

To enable this strategy, we will develop a human capital plan and build technical competence while refining our culture and improving regional relationships.

We assigned a champion for each of the critical parts of the strategy and each champion will brief the senior executive team on a way forward later this summer. I'll keep the district updated on the progress, but, in the meantime, please speak up if you'd like to be part of one of the working groups that will tackle these initiatives.

And that brings us back to the 'big ideas' and where they fit in. We received more than 40 suggestions that generally fit into the categories of technology, sustainability, human capital, watershed planning and project management. Fortunately there's a very close link between our strategic vision and the 'big ideas' initiative. We'll make sure the strategic champions take the 'big ideas' into account as they determine their next steps.

It will be critical to get input from throughout the organization as we forge our path to the future, so thank you for speaking up and being part of the solution. As always, I appreciate all the hard work you do every day and I'm proud to be part of the St. Paul District Team!

PS: As we head into the summer season, please remember to stay safe at home and work. The 101 days between Memorial Day and Labor Day are some of the best in our region, but also some of the most dangerous. Our future depends on our people, so take care of yourself!

Summer 2017 | Volume 43, Issue 2

Moorhead, Minnesota, Mayor Del Rae Williams talks about the importance of the project to her city during the April 17 Fargo-Moorhead diversion project groundbreaking ceremony. Fargo, North Dakota, Mayor Dr. Tim Mahoney stands to her right and North Dakota Sen. John Hoeven stands to her left.

Photo by Shannon Bauer

Groundbreaking: $2.1 billion Fargo diversion project gets underway

Story by Shannon Bauer

The U.S. Army Corps of Engineers, St. Paul District, and the Fargo-Moorhead Diversion Board of Authority hosted a 1997 Flood Commemoration and Groundbreaking Ceremony for the Fargo-Moorhead Metropolitan Area Flood Risk Management Project April 17.

The groundbreaking was held where the diversion project's inlet control structure will be located, south of Horace, North Dakota. The control structure marks the beginning of federal construction and the first major step toward permanent flood risk management for this community. This particular day was selected because it was the 20th anniversary of the day the Red River of the North crested in Fargo and Moorhead during the historic flood of 1997.

The communities of Fargo and Moorhead and the St. Paul District have a long history. The three have fought floods side-by-side going back to at least the 1950s to include the floods of 1997 and the flood of record in 2009. Since 2008, this partnership has included working together to design a flood risk management project that will provide a permanent solution to reduce the menace of flooding, a constant threat to this region.

"For over 20 years, we've all experienced the unbelievable stories of heartache and heroism from the floods of 1997 and 2009, along with the impact they have made upon the lives of citizens in Fargo-Moorhead and the surrounding area," said Fargo Mayor Dr. Tim Mahoney. "Our people have waited patiently for many years for this moment and now the wait is finally over. We are officially breaking ground on the project that will keep us safe from flooding."

The diversion project includes a 30-mile long diversion channel in North Dakota with upstream staging, a 12-mile long southern embankment, 19 highway bridges, four railroad bridges, three gated control structures and two aqueduct structures. Once complete, it will significantly reduce flood risk for more than 230,000 people and 70 square miles of infrastructure in the communities of Fargo, Moorhead, West Fargo, Horace and Harwood.

The project is being implemented using a public private partnership with split delivery in an attempt to improve delivery of federal projects.

This is an innovative approach for the Corps of Engineers, and the Corps named this project as an alternative financing "demonstration project."

The split delivery plan includes the project sponsors constructing the diversion channel using a public private partnership to finance, design, build, operate and maintain their portion of the project. The Corps will design and construct the southern embankment portion. The split delivery approach reduced the federal share of this project from $850 million to $450 million and will reduce delivery time by more than 50 percent.

"Our goal is to complete this project as quickly and efficiently as possible to both save money and reduce flood risk for the communities," said Terry Williams, program manager. "With optimal funding, an operational project can be in place by 2024."

Williams said the event was a great success. "Many dedicated people have put their heart and soul into making this project a reality," she said. "It was very rewarding to finally break ground and celebrate the teamwork it took to get here!"

In addition to Mahoney, other dignitaries attending the ceremony included Moorhead Mayor Del Rae Williams, North Dakota Senators Heidi Heitkamp and John Hoeven, a representative of North Dakota Congressman Kevin Cramer's office, Mississippi Valley Division Commander Maj. Gen. Michael Wehr and St. Paul District Commander Col. Sam Calkins.

Col. Sam Calkins, St. Paul District commander, left, and other community leaders address those in attendance at the Fargo-Moorhead diversion project groundbreaking April 17.

Photo by Shannon Bauer

Col. Sam Calkins, St. Paul District commander, left, talks with Roger Olson, Diversion Authority board member, about the diversion project after the groundbreaking ceremony April 17.

Photo by Shannon Bauer


Matt Bray


Tim Paulus


Sue Robinson


Neil Schwanz

4 District employees earn Civil Servant of the Year honors for 2016

Story by Shannon Bauer

Four St. Paul District employees earned Civil Servant of the Year honors for 2016. They were presented the awards among family and friends at the Federal Executive Board of Minnesota's 40th annual award ceremony, held at the Double Tree by Hilton in Bloomington, Minnesota, May 4.

Matt Bray

Award: Unsung Hero
Title: Cost engineer, design branch, engineering and construction division
Job description: "I write specifications and do cost estimates for Corps projects."
Years at St. Paul District: 29
Years with Corps: 29
Years with government: 29
Previous positions/employment: From 1978 through 1986, I worked as an exploration geophysicist for Atlantic Richfield in Texas and Alaska. In 1988, I joined the St. Paul District and have spent time in the hydraulics, general, and geo-tech sections before coming to work in the cost and specifications section.
Education: Bachelor of Science in geophysics from the University of Minnesota — Minneapolis and Bachelor of Science in civil engineering, also from the University of Minnesota.
Hobbies: Bicycling and spending time at the cabin on Lake Mille Lacs.
Residence: Columbia Heights, Minnesota
Comments: "I have spent my entire engineering career with the St. Paul District. It is a great place to work with challenging and diverse projects. For me, though, the best part of the job is working with such an enjoyable group of people. Not only have I benefitted from the experience of others that I work/interact with, but I have developed many close friendships."

Tim Paulus

Award: Excellence Beyond Expectations
Title: Mechanical engineer, design branch, engineering and construction division
Job description: Mechanical engineer and regional and national technical specialist and subject matter expert. Currently represents the Corps

of Engineers as chairman of the World Association for Waterborne Transport Infrastructure, and a member of the Permanent International Association of Navigation Congresses, or PIANC, working group in developing a report on rolling gates and movable bridges. Also, a Corps of Engineers instructor for machinery lubrication.
Years at St. Paul District: 30
Years with Corps: 30
Years with government: 30
Previous positions/employment: One year in construction
Education: Bachelor of Science in mechanical engineering from North Dakota State University in Fargo, North Dakota, and a Master of Science in mechanical engineering from the University of Minnesota — Minneapolis.
Hobbies: Carpentry, woodworking, boating, waterskiing, spending time with grandkids, spending time at the lake, working out and weightlifting.
Residence: Little Canada, Minnesota
Comments: "It has been a great experience working for the Corps of Engineers. I have gotten a chance to work with great people here in St. Paul and many other engineers across the Corps, and I am constantly learning something new. I also have had the chance to work with other engineers from a number of other countries as part of my PIANC work groups."

Sue Robinson

Award: Customer Service
Title: Chief of budget, manpower, management analysis, resource management
Job description: "I work in resource management, where I manage the district's operating budget, estimating costs and determining affordability and impacts on both a district and regional level. I facilitate the receipt of our funds from congress and track the use of those funds. I work daily in our Corps of Engineers Financial Management System and assist people with processing transactions."
Years at St. Paul District: 26
Years with Corps: 26
Years with government: 26
Previous positions/employment: PowerMation — accountant, two years
Education: Bachelor of Science in accounting and Bachelor of Science in finance, Minnesota State University — Mankato, Minnesota.
Hobbies: Spending time with my family, camping and boating. Love the outdoors!
Residence: Robbinsdale, Minnesota
Comments: "I have worked here for 26 years and couldn't be happier! I started as a voucher examiner in resource management and have worked most jobs in the department on my way up to budget officer. I have enjoyed them all and love working with my fellow Corps employees. The Corps has been very good to me and my family through many life events."

Neil Schwanz

Award: Leadership
Title: Chief of geotechnical and geology branch, engineering and construction division
Job description: "I direct and manage geotechnical and geology functions, including dam and levee safety, within the engineering and construction division."
Years with St. Paul District: 38
Years with Corps of Engineers: 38
Years with federal government: 38
Previous Positions/Employment: Caretaker for a couple of properties.
Education: Bachelor of Science in civil engineering from the University of Minnesota — Minneapolis and a Master of Science in civil engineering, also from the University of Minnesota.
Hobbies: My grandsons, bowling, barbequing, home remodeling, Friday nights on the deck with my wife and a bottle of wine.
Residence: Cottage Grove, Minnesota
Comments: "This nomination is truly an honor, as it comes from my Corps family. I'm so blessed to be working with such a talented team and to have the support of my family in all I do. Without you, I would never have been nominated for this award."

From left, Sue Robinson, resource management; Tim Paulus, engineering and construction; Neil Schwanz, engineering and construction; and Matt Bray, engineering and construction; were presented their Civil Servant of the Year awards at the Federal Executive Board's 40th annual award ceremony in Bloomington, Minnnesota, May 4.

Photo by Shannon Bauer

Summer 2017 | Volume 43, Issue 2

New tailgate wraps promote safety, encourage wearing life jackets

Story by Daniel Abramowitz

The Mississippi River Southern Headwaters seciton was recently selected as the recipients of water safety tailgate wraps for their work vehicles.

"The tailgate wraps are a great way to attract attention to our adult safety campaign and hopefully save some lives by encouraging people to wear life jackets," said Pam Doty, National Water Safety program manager.

Two vehicles received the tailgate wraps. This effort was funded by the U.S. Army Corps of Engineers Natural Resources Education Foundation, one of the Corps' national partners. The foundation was created to help protect the nation's waterways that are operated by the Corps.

The tailgate wraps promote the "Life Jackets Worn...Nobody Mourns" campaign, developed by the Corps of Engineers in cooperation with the Corps Foundation under a grant from the Sport Fish Restoration and Boating Trust Fund, administered by the U.S. Coast Guard. The logo on the tailgate wrap promotes the PleaseWearIt.com website where all of the campaign materials are located and anyone can use the materials free of charge.

Those materials include audio and video public service announcements, posters for the campaign and other tailgate wraps and banner artwork.

"By putting the campaign logo on tailgates it really gets the message out there where people need to see it," said Rachel Garren, Corps Foundation special program director.

The "Life Jackets Worn...Nobody Mourns" campaign received several awards at the 2016 International Boating and Water Safety Summit.

"The tailgate wraps are a great way to attract attention to our adult safety campaign and hopefully save some lives..."

--Pam Doty
National Water Safety program manager

The "Life Jackets Worn...Nobody Mourns" campaign wraps are featured on two Mississippi River Southern Headwaters vehicles.
Courtesy photo

St. Paul contractor earns superior safety performance awards

Story by John Barker

St. Paul contractor LS Marine, Inc., earned both the district- and division-level 2016 Safety Now Advocate Group, or SNAG, awards for superior safety for their performance dredging the Mississippi River to maintain a navigable channel for commercial traffic.

During the 2016 season, 32 separate task orders were sent to LS Marine, the mechanical dredging contractor which was awarded the indefinite delivery/indefinite quantity contract for the St. Paul District in 2014.

From left: Jamey Sanderfur, Mississippi Valley Association of General Contractors president; Col. Sam Calkins, St. Paul District commander; Taylor Luke, LS Marine president; and Maj. Gen. Michael Wehr, Mississippi Valley Division commander; pose with the division-level safety award Feb. 24.

Courtesy photo

During the 2016 dredging season. The contractor moved more than 300,000 cubic yards of material amounting to approximately $3.2 million.

According to the award nomination, more than 17,600 man-hours were conducted without a lost-time injury or recordable accident. Since the contract was awarded, LS Marine has moved 1 million cubic yards, at a cost of $11.1 million and 52,800 man-hours of effort without an accident. To ensure a top level commitment to safety, LS Marine fully trained both the project manager and superintendent for the task orders.

The contractor implemented an excellent accident prevention program, according to the nomination. All employees received training on safe work practices, lockout/tagout system procedures, use of personal protective equipment, hazardous chemicals and emergency response.

LS Marine had several locations involved with this contract and were diligent in providing project layout plans, emergency contact information and emergency medical facility locations for each task order location. Safety meetings were held weekly by the project superintendent and monthly by the project manager.

The contractor required personal protection equipment, or PPE, be worn at all times by anyone on the project site. PPE included head protection, high visibility vests, foot protection, eye protection and personal flotation devices. They also provided training to employees associated with wearing the equipment. LS Marine ensured no work began, unless one of their safety-focused employees was present.

The contractor proactively managed hazards unique to marine construction, such as utilization of radios for worker communication to mitigating hazards in isolated areas on the river and at placement sites. They coordinated with other marine traffic to avoid collisions with the working plant or barges unloading at riverbank placement sites, utilized nearby lock and dams to obtain current information on traffic flow and provided notice to the Coast Guard on location of dredging operations. Man overboard drills were regularly conducted to ensure employees were well versed in the procedures to be followed in the case of such an emergency. Equipment operating on the barges was properly anchored and hoisting limits were displayed in cabs to prevent destabilize the barge.

He's a dual hatted, purpose driven citizen soldier

Story by Patrick Moes

What do plants, animals, water and military law have in common? For one St. Paul District ecologist, the environment and military are a combination of simultaneous careers as a citizen Soldier.

Eric Hanson, St. Paul District Regional Planning and Environment Division North senior staff ecologist, focuses on finding balance in the environment during the week as an environmental planner. He switches gears and dawns his Army uniform on the weekend as the command paralegal for the 34th Infantry Division, with the Minnesota National Guard. Hanson said his role as the command paralegal is to advise the senior lawyer, or staff judge advocate, on all division-level military issues involving training and readiness for nearly 40 paralegals within the state of Minnesota at more than 10 sites.

He said that while the two jobs are distinctly different, his military roles helped shape his career with the Corps of Engineers. "I feel like my background in the military legal field, which includes nearly two decades of experience in legal research, and interpretation and application of laws and regulations, really helps a great deal with my work here at the Corps," he said. He added that the military's leadership development programs prepared him for a wide range of individual and organizational challenges.

Those challenges, of working to find environmentally friendly solutions to community problems and ensuring his military unit operates within the legal framework of the Uniformed Code of Military Justice, recently became a little easier for Hanson. He graduated with honors from the United States Army Sergeants Major Academy March 31. "In completing the sergeants major course, I truly feel like I am prepared to handle almost any difficult leadership challenge," he said. Much of the curriculum was done virtually, which meant he could be found on his computer late at night working on writing a paper or doing correspondence work.

"I've learned that building and maintaining relationships is perhaps the most important thing someone can do to empower individual, team and organizational success."

--Eric Hanson
Senior staff ecologist

A member of the Army for the past 22 years, Hanson said he's extremely proud of his most recent accomplishment. "For me personally," he said, "the most important facet of completing all the requirements for the top enlisted grade is possessing the strength and freedom to make what I feel are the 'right' decisions that are in the interest of both the individual and the organization whenever possible."

Aaron Snyder, Regional Planning and Environment Division North chief, said "Eric's accomplishment provides direct benefits to our organization through his continued leadership development. His unique perspectives are critical to the successful accomplishment of our mission and these experiences add new ideas to our organization."

Consistently putting the organizational needs above his own, is something Hanson said is a part of the military mindset. He said the military taught him to be an organized, prepared and disciplined leader that accepts people for who they are, and to approach every obstacle with the understanding that every problem has a solution. "I've learned that building and maintaining relationships is perhaps the most important thing someone can do to empower individual, team and organizational success," he said.

Eric Hanson

With an eye toward continued success, Hanson said he's not stopping at achieving the highest enlisted rank in the Army. He's now looking for other opportunities. "I'm planning to pursue a doctorate degree at the University of Minnesota in conservation biology," he said. "Hopefully, by this time next year, I'll be well on my way toward reaching my next personal goal!"

Springing into spring cleanup

Story by Patrick Moes

Spring cleaning took on a slightly different meaning recently as the district environmental section teamed up with a few of its partners to clean up a backwater slough in northeast Iowa.

Following torrential rains in August 2016, the Upper Iowa River rapidly rose to major flood stages. With more than 8 inches of rain falling in the basin overnight, communities along the river found themselves with a major disaster on their hands. The rising river collected debris and fallen trees throughout the basin.

As the flood waters receded, the debris ultimately settled in Big Slough, a Mississippi River backwater near the Corps' Blackhawk Park in De Soto, Wisconsin. Ray Marinan, Corps natural resources specialist, said a team of Corps staff and members from the U.S. Fish and Wildlife Service and Living Lands and Waters, collected around 60 cubic yards of manmade debris during a cleanup effort in early April. Marinan said the debris included docks, picnic tables and lots of plastic. He said the team even filled a 30-yard dumpster with refrigerators and old tires.

"The project was amazing," said Marinan. "We worked within the limits of Mother Nature, as well as working really hard to schedule a time for everything to fall into place." Those limits included finding the perfect time to ensure the various agencies all had an availability. It also meant trying to find a time when the river levels were suitable for the environmental cleanup.

Scheduling challenges included getting the Corps' maintenance and repair crew to pitch in with their crane. Marinan said the team did a great job clearing the log jams and vegetative debris pile that was created following the flood. He said the crew was able to either remove the debris from the slough or at least move the vegetative debris out of the channel. He added there is now water moving through the middle of the slough, which will help improve the area.

Marinan, quick to thank the various people and agencies that supported the cleanup, said the entire project wouldn't have been possible without the help of the nonprofit Friends of Pool 9 group. He said the group was responsible for bringing the problem to the Corps, and they worked tirelessly to find a solution that worked for everyone involved.

Randy Urich, environmental management section manager, said this project is "another example of what is possible with the strong support and great network of partners on the river. It's a definitely a resource that brings people together."

More than 8 inches of rain flooded the Upper Iowa River in August 2016. The river collected debris and dumped it into Big Slough, west of De Soto, Wisconsin.
Photo by Ray Marinan

Scheduling challenges included getting the Corps' maintenance and repair crew to pitch in with their crane during the Big Sloug cleanup west of De Soto, Wisconsin.
Photo by Ray Marinan

Jean Schriever locks a vessel through the Lower St. Anthony Falls Lock and Dam
USACE photos by Lyle Nicklay

Schriever only female lock and dam operator in the country

Story by Lea Guenther

Editor's note: This article is reprinted from the November 1980 issue of Crosscurrents

Jean Schriever's employment with the Corps of Engineers has included many tasks. One interesting fact about her job is that she is the only female lock and dam operator in the United States. "It's not a job for someone who doesn't like to get dirty," she said, "and you've got to be able to do a little bit of everything."

There was quite a bit of furor at the St. Anthony Falls Lock and Dam in November 1978 when workers learned that a woman was arriving as a laborer in the Corps' Upward Mobility Program. That woman was Jean.

"The guys thought the new employee would be either an Amazon or a helpless, clinging vine," Jean said, and she felt it was natural that a male-only population might resent a female on the job.

"With a sense of humor, you can put up with anything," Jean said, and she was determined to do the best job she could to the best of her ability. She grew up on an Iowa farm and was well-acquainted with farm machinery, tools and maintaining equipment.

She emphasized that she doesn't pretend to be able to do things she can't and tries to learn new skills by watching older employees. "You must be able to ask for help rather than cause an accident," she said.

When Jean began to work at the lock and dam in 1978, the lock was "being battened down for winter." Employees had to replace guide rods and guide rams when the navigation season ceased in mid-December. The rams, which weigh 950 pounds each and allow water to flow into the lock chamber, Jean explained, had been under water 20 years and were "rusted and barnacled."

As a laborer, she quickly learned to wear long johns, a down jacket and two pairs of socks, along with a hard hat and steel-toed shoes. She often worked standing in frigid water in 30 degrees below zero weather. She learned about large bodies of water and the stress which water places on steel.

She has taken her turn at climbing down into a valve pit to work in about 25 feet of water. She has built scaffolding, made frames and poured concrete reinforced with steel rods. She can weld, braise, solder, do carpentry and read blueprints.

And a lock and dam worker's training would not be complete without wielding a wire brush prior to painting equipment. She assisted in the installation of a solar heating prototype at the Upper St. Anthony Falls Lock and Dam, and also plumbed in a metering system which monitors water usage.

One of the more unusual tasks are greasing the lock gates in spring. Jean donned disposable coveralls and a safety belt, climbed down to the icy water and hung head down, dipping a special mitt into grease to grease the rubber seal on the gates. She was working upside-down over 16 feet of running flood water.

Also in the spring, the lock and dam gates must be maintained ice free when flood waters bring ice chunks down the river. A bubbler must be operated to keep ice from freezing on the gates and to maintain a 14-foot
pool which feeds an electric company's turbine.

A lock and dam employee must be able to work rotating shifts, seven days on each shift, and get used to having days off in the middle of the week. He or she must ignore rain, snow, lightning, blistering heat and bitter cold.

Runaway barges must be caught by employees in life boats and tied off with lines that are ¾ to 2" thick and very heavy when waterlogged. The employee assists in the rescue of those who fell or jumped from bridges and in the retrieval of bodies from the river.

Due to recent heavy rain, the present level of the river is as high as it usually is in the spring. So lock and dam operators are busy flushing submerged, waterlogged debris downriver.

Another task is guiding visitors, including busloads of school children, on tours of the facility.

Jean explains that barge traffic is a very cheap form of transportation. The energy expenditure to taxpayers for each lockage, including the operation of the electrically-powered hydraulic system, lights and public address system, is eight to 10 cents. She adds that "We will lock anything through the locks including your canoe." Nine million gallons of water flow into the lock in the eight minutes it takes to fill the chamber.

After successfully completing the laborer position, Jean was promoted to lockman. In addition to other duties, the lockman must maintain records, such as the time of approach of a towboat, if the lockage was on time, if there were any accidents, and keep track of personnel.

The Corps requires lock employees to have CPR training, multimedia first aid, defensive driving training, a boat handling license and a crane operator's license.

The procedure for locking a boat goes like this according to Jean:

"A towboat coming upriver calls on the radio (the lock has three different kinds of radio communication) and asks to lock up. The signal lights are turned on. Green indicates go, or come ahead, the lock is yours; amber means we are preparing the lock for you, stay away from the intake or discharge area; and red means stop, stay away, the lock is in use.

"The lower lock gates then open and the towboat comes into the lock chamber, which is 68 feet wide and 200 feet long. The barges are brought in and deckhands tie off onto mooring bits, which are 700 pound cylinders of concrete reinforced with steel.

"When all barges are in place, the towboat takes its place beside the barges and the lock chamber is filled. Small boats can be placed in the lock with the barges and then locked with cargo such as diesel fuel, kerosene, petroleum or asphalt.

"During the lockage, the lock workers and towboat crew try to keep the barges from doing any damage to the lock walls. There is only a two-foot width of water between the barges and the lock walls.

"The lock gate is opened and the chamber is allowed to fill to the level of the pool. At that level, a "tainter" gate is lowered. The lock operator gives a blast on the air horn, indicating that the lock is ready for the barges to depart. The towboat, and any other boat equipped with a horn, must honk back in answer.

"Cables weighing 160 to 200 pounds again secure the barges to the rowboat and the tow pushes the barges across the pool, which covers an area of about three acres. The lower lock phones the upper lock, using either landline telephone or radio, to tell them of the towboat's approach. The procedure is repeated at the upper lock, but the water level there is raised [nearly] 50 feet."

After successfully completing the laborer position, Schriever was promoted to lockman.
USACE photo by Lyle Nicklay

Everyday risk management

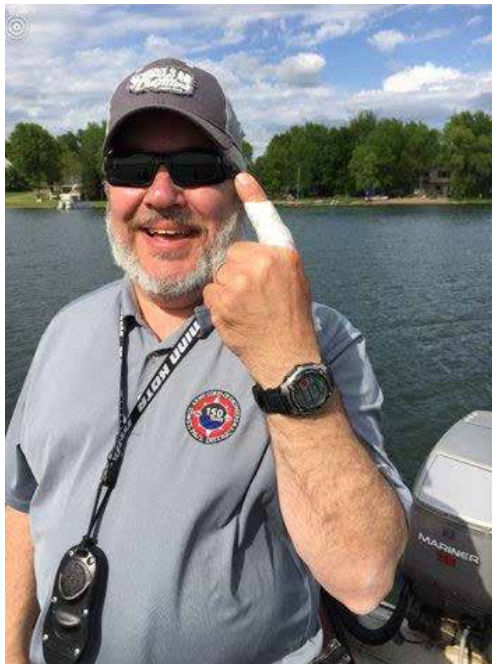
Story by Barry Simmonds

The Corps of Engineers has many terms and acronyms. One of the terms used is “risk management.” According to the Corps’ safety manual, risk management “is a business process that includes the identification, assessment and prioritization of risks, followed by coordinated and economical application of resources to minimize, monitor and control the probability and/or impact of unfortunate events to an acceptable level.” In other words, just thinking about what can go wrong and then taking steps to help ensure it goes as planned, or at least minimizing hazards or injuries if things do go wrong.

The Corps uses a form called the Activity Hazard Analysis, or AHA, for this. It details what the hazards of a job or task, and what steps are needed to minimize the hazard identified. All major functions of a job must have a current (yearly) AHA, which is signed by the supervisor and the employee. It’s a good reminder of the safety steps needed to keep everyone as safe as possible.

I now have 27 years as a full-time safety professional. Before that, I was a full-time firefighter and dealt with safety on a daily basis. I “try” to put into practice the things I preach and recently got to experience first-hand why it’s important to be “prepared”.

I enjoy fishing a lot. I’ve fished in several tournaments, fished in the rain, the snow, in high winds, and I ice fish. Needless to say, I’ve spent a fair amount of time on the water. During those times, I’ve witnessed and experienced a number of things which give me insight in better “risk management.” I had a friend who once got a thumb mangled by a large northern pike. Fortunately, I carried a small trauma pack and could stop the bleeding and get him bandaged up. I had a starter rope for my outboard break one time as an ocean going freighter was coming toward me. I was able to get another rope I had and made an improvised starter cord and



Barry Simmonds, safety chief

start the motor and move out of the channel well before the big guy arrived. I’ve broke shear pins on motors and had a spare to make the quick fix so I could make it back safely. And recently, I finally experienced what I had hoped to always avoid.

This past month, I was fishing with some friends and landed a small northern pike. These little fresh water barracudas are full of razor sharp teeth. I have thus far managed to avoid getting my fingers badly mauled by any of them, and I’ve also thus far managed to never be badly nailed by a fishing hook, but, that lucky streak ended, and I ended up with a northern pike who was not at all happy about being reeled into a boat hanging from a treble hook which was also impaled in one of my fingers. (Let me tell you, it wasn’t fun!)

Fortunately, while I’ve always carried a pair of side cutters “just in case,” this last fall I found a rather large pair that looked like it could easily cut through even the biggest hooks that I might encounter. After the attack by the crazed fish was over and the hook was impaled, my son-in-law was able to cut the hook from the lure and the fish was removed and released. The barb of the hook couldn’t be backed out of my finger as it was way too deep. We had to do a function test of the first aid kit to get the bleeding stopped and the wound covered. What could have been a trip ending incident turned out to be just another fishing tale to be laughed about later.

Proper risk management hopefully helps prevent mishaps. However, risk management can also help reduce the severity of an accident if it does occur. No matter what you are doing this summer, take a few minutes to think about what “might” happen and take the steps to keep everyone safe. Everything we do involves some level of risk. By “managing” the risk properly, we can all enjoy our summer!

Corps trains partners to protect floodplain forests

Story by Daniel Abramowitz

The district is training its partners to develop and implement management prescriptions to ensure the long-term resilience and health of floodplain forests in the Mississippi River.

The St. Paul District is conducting forest inventory training with one of its partners, the U.S. Fish and Wildlife Service, to allow them to use Corps inventory and data analysis protocols on their own land and to integrate data analysis between federal agencies. The training puts the Corps' partners in a position to better conserve and restore the floodplain forest habitat on the Upper Mississippi River by using data in order to provide more information that can lead to better informed management decisions about the current and future condition of that habitat on the river.

"The forest inventory training is necessary to make well informed management decisions, based on the best available data, to ensure that floodplain forests continue on the Mississippi in the future," Corps Forester Andy Meier said.

Floodplain forests are the predominant non-aquatic habitat in the Upper Mississippi River, accounting for as much as 20 percent of the total floodplain area, and is a critical habitat for hundreds of species of birds, mammals and amphibians. Some of these species, such as the Prothonotary Warbler, are found almost exclusively in floodplain forests and are dependent on this habitat for their survival.

Currently, the Service is the only partner using the same Corps protocols for their land within the floodplain. However, Corps and Service ownership accounts for a large majority of the land ownership on the Mississippi River in Minnesota, Wisconsin and the northeast part of Iowa up to the Illinois border. The protocol for the training was developed through coordination between the St. Paul, Rock Island and St. Louis districts, and it is being implemented across all three districts.

"The value of working with the Fish and Wildlife Service on this is that it will allow for a systemic and coordinated analysis of floodplain forest conditions on all federal lands along the Upper Mississippi River and will allow for joint targeting of habitat projects," Meier said.

The Corps plans to continue working with Service and other interested agencies to provide periodic refreshers and updates on protocols.

The long-term goal of the forest inventory training is to provide a continual record of forest development and change that drives decisions related to maintaining and improving the health and viability of the Upper Mississippi River Ecosystem.

"There is no real end point," said Meier. "This process is continual, and we will continue to provide new and really useful information over the decades to come."

Corps staff and their partners work together to develop management tools to improve floodplain forests along the Mississippi River

Courtesy photos

First tow of the season

The Motor Vessel Stephen L. Colby locked through Lock and Dam 2, near Hastings, Minnesota, March 9. She was pushing 12 barges en route to St. Paul, Minnesota.
Photo by Pam Niebur

New hires

Benjamin Baasch, laborer, operations, Valley City, North Dakota
Tyler Bannor, park ranger, operations, Grand Rapids, Minnesota
Lucas Begeman, natural resources trainee, operations, De Soto, Wisconsin
Krystell Blair, natural resources trainee, operations, Federal Dam, Minnesota
Kaci Bleck, natural resources trainee, operations, Crosslake, Minnesota
Jeanette Blare, park ranger, operations, McGregor, Minnesota
Kathleen Brown, natural resources trainee, operations, Brainerd, Minnesota
Rebecca Charles, natural resources trainee, operations, Spring Valley, Wisconsin
Douglas Crawford, natural resources trainee, operations, De Soto, Wisconsin
Lauren Dalimata, natural resources trainee, operations, Federal Dam, Minnesota
Anna Dourgarian, student trainee, engineering and construction, St. Paul, Minnesota
Lexi Goergen, student trainee, engineering and construction, Fargo, North Dakota
Angelique Gonzales, natural resources trainee, operations, De Soto, Wisconsin
John Henderson, student trainee, engineering and construction, Fargo, North Dakota
Matthew Kiefer, student trainee, operations, La Crescent, Minnesota
Joseph Konrardy, lock & dam operator, Operations, Guttenberg, Iowa
Krista Kniefel, natural resources trainee, operations, Crosslake, Minnesota
Nicolas Kramer, natural resources trainee, operations, Valley City, North Dakota
Jonathon Knacke, park ranger, operations, Crosslake, Minnesota
Erik Muhlenbruck, natural resources trainee, operations, Spring Valley, Wisconsin
Kaecey Parker, environmental protection assistant, operations, Bemidji, Minnesota
Andrew Pederson, natural resources trainee, operations, McGregor, Minnesota
Stephen Riley, environmental protection assistant, operations, Brainerd, Minnesota
Emmett Simkowski, student trainee, operations, La Crescent, Minnesota
Hunter Simonson, natural resources trainee, operations, Federal Dam, Minnesota
Austin Smith, natural resources trainee, operations, Valley City, North Dakota
David Weiss, environmental protection assistant, operations, St. Paul, Minnesota
Patrick Wros, student trainee, operations, Grand Rapids, Minnesota
Jadyn Young, natural resources trainee, operations, Brainerd, Minnesota

District marches in St. Patrick's Day Parade

St. Paul District celebrated St. Patrick's Day by marching in the St. Paul, Minn., 51st annual St. Patrick's Day Parade March 17.

Photo by Wendy Medlin

Taps

Ron Corey, former master tender at Lock and Dam 3, Welch, Minnesota, passed away April 6.

2017 Leadership delevelop class selected

Brian Alberto, engineering and construction
Nate Campbell, project management
Ben Cox, project management
Tamryn Frauenshuh, operations
Abby Hansen, personnnel
Derek Ingvalson, planning
Nicholas Lorenz, operations
Ryan Malterud, operations
Christine Moss, engineering and construction
Scott Snelling, engineering and construction
Greg Wachman, engineering and construction
Tammy Wick, project management

Congratulations

Travis Brantner, lock and dam operator at Lock and Dam 3, and his wife, Jenae, gave birth to a boy, Aycen Michael, April 2. Aycen was born 8 pounds, 15 ounces and 21 inches long.
Quianna Dolney, engineering and construction, and family welcomed baby Leonard James on April 10. Leonard James was born 6 pounds, 9 ounces and 20 inches long.
Bart Spriggle, operations, Dredge Goetz, was promoted to master tender for the maintenance and repair section.
Joshua Rye, operations, Fountain City, Wis., was promoted to master derrickboat operator, supervisory, for the maintenance and repair section.
Erin Krug, engineering and construction, district office, St. Paul, Minnesota, participated in the National Curling Championship in Fairbanks, Alabama. Her team finished with a 5-4 record.
Mike Dahlquist, engineering and construction, was wedded to Sally Hed June 24.
Andrea Sterling, planning, was selected as the planning division secretary.
Channing Helgeson, operations, Dredge Goetz, was selected as the engineering equipment operator.
Susan Funke, operations, Dredge Goetz, was selected as the cabin attendant.
Steven Thatcher, operations, Dredge Goetz, was selected as the 3rd assistant engineer.
Andrew Lorenz, **Matt Rolbiecki**, and **Jeff Rindal**, operations, Dredge Goetz, were selected as the deckhands.
Michelle Kniep, planning, was selected as the inaugural planner of the year.
Nathen Osmundson, operations, was selected as the equipment repairman at Lock and Dam 5, near Minnesota City, Minnesota.
Joshua Isakson, operations, was selected as the maintenance and eepair marine machinery mechanic leader.

Retirements

Ferris Chamberlin, supervisory civil engineer, district headquarters, St. Paul, Minnesota
Scott Jutilla, civil engineer, district headquarters, St. Paul, Minnesota
Joe Willging, district counsel, district headquarters, St. Paul, Minnesota
Neil Schwanz, supervisory civil engineer, district headquarters, St. Paul, Minnesota

Historic presentation

Kenton Spading, civil engineer and a member of St. Paul District's History Committee, made a presentation on the history of the district's Fountain City Boat Yard to the Buffalo County Historical Society in Fountain City, Wisconsin, April 13.

Courtesy photo

Jackson learns more about the St. Paul District mission

Maj. Gen. Jackson, Corps of Engineers deputy commander, learns how the Upper St. Anthony Falls Lock and Dam, or USAF, works from Mike DeRusha, USAF lockmaster, during a visit to the district May 31.

Photo by Patrick Moes

District talks to hundreds at NW Sportshow

From left, Mark Lauer, U.S. Coast Guard Auxiliary; Kelly Obermiller, resource management; and Gwen Davis, contracting; talk about Corps missions at the Northwest Sportshow in Minneapolis March 23-26.

Courtesy photo

Wehr visits Fountain City

Maj Gen. Michael Wehr, Mississippi Valley Division commander, visits staff at the St. Paul District's Fountain City Service Base, in Fountain City, Wis., April 18. He learned more about what the staff does to maintain the 9-foot navigation channel from Minneapolis to Lock and Dam 10, near Guttenberg, Iowa.

Photo by Patrick Moes